

WHAT IS CLAIMED IS:

- 1 1. An electrode comprising:
 - 2 a conductive adhesive layer; and
 - 3 a conductive layer coupled to the conductive adhesive layer, the conductive
 - 4 layer having at least one nonconductive region therein.
- 1 2. The electrode of claim 1,
 - 2 wherein a nonconductive region affects electrical current transport properties
 - 3 associated with the electrode.
- 1 3. The electrode of claim 1,
 - 2 wherein the conductive adhesive layer may be characterized by a thickness,
 - 3 and wherein a nonconductive region affects electrical current transport properties in a
 - 4 direction perpendicular to the conductive adhesive layer's thickness.
- 1 4. The electrode of claim 1, wherein the nonconductive region comprises a void
2 in the conductive layer.
- 1 5. The electrode of claim 1,
 - 2 wherein the electrode comprises an electrotherapy electrode.
- 1 6. The electrode of claim 1,
 - 2 wherein the electrode comprises a defibrillation electrode.
- 1 7. An electrode comprising:
 - 2 a conductive adhesive layer; and
 - 3 a conductive layer coupled to the conductive adhesive layer, the conductive
 - 4 layer having at least one void therein that provides a nonconductive region within the
 - 5 conductive layer.
- 1 8. The electrode of claim 7,
 - 2 wherein a void affects electrical current transport properties associated with
 - 3 the electrode.
- 1 9. The electrode of claim 7,
 - 2 wherein the conductive adhesive layer may be characterized by a thickness,
 - 3 and wherein a void affects electrical current transport properties in a direction
 - 4 perpendicular to the conductive adhesive layer's thickness.

1 10. The electrode of claim 7,
2 wherein the electrode comprises an electrotherapy electrode.

1 11. The electrode of claim 7,
2 wherein the electrode comprises a defibrillation electrode.

1 12. An electrode comprising:
2 a conductive adhesive layer;
3 a conductive layer coupled to the conductive adhesive layer; and
4 a set of swatches positioned between the conductive adhesive layer and the
5 conductive layer,
6 wherein a swatch is characterized by an area that is smaller than that of the
7 conductive layer.

1 13. The electrode of claim 12, wherein a swatch comprises an insulating material.

1 14. The electrode of claim 12, wherein a swatch affects electrical current transport
2 properties associated with the electrode.

1 15. The electrode of claim 12, wherein the conductive adhesive layer may be
2 characterized by a thickness, and wherein a swatch affects electrical current
3 transport properties in a direction perpendicular to the conductive adhesive layer's
4 thickness.

1 16. The electrode of claim 12,
2 wherein the electrode comprises an electrotherapy electrode.

1 17. The electrode of claim 12,
2 wherein the electrode comprises a defibrillation electrode.

1 18. An electrode comprising an ultrasonic transmitter.

1 19. The electrode of claim 18,
2 wherein the electrode comprises an electrotherapy electrode.

1 20. The electrode of claim 18,
2 wherein the electrode comprises a defibrillation electrode.

1 21. An electrode comprising an ultrasonic receiver.

1 22. The electrode of claim 21,
2 wherein the electrode comprises an electrotherapy electrode.

1 23. The electrode of claim 21,
2 wherein the electrode comprises a defibrillation electrode.

1 24. A system comprising:
2 a device comprising an electrical measurement element; and
3 an electrode comprising:
4 a conductive adhesive layer; and
5 a conductive layer coupled to the conductive adhesive layer, the
6 conductive layer having at least one nonconductive region therein.

1 25. The system of claim 24,
2 wherein a nonconductive region affects electrical current transport properties
3 associated with the electrode.

1 26. The system of claim 24,
2 wherein the conductive adhesive layer may be characterized by a thickness,
3 and wherein a nonconductive region affects electrical current transport properties in a
4 direction perpendicular to the conductive adhesive layer's thickness.

1 27. The system of claim 24, wherein the nonconductive region comprises a void in
2 the conductive layer.

1 28. The system of claim 24,
2 wherein the electrode comprises an electrotherapy electrode.

1 29. The system of claim 25,
2 wherein the device comprises a defibrillator and the electrode comprises a
3 defibrillation electrode.

1 30. An system comprising:
2 a device comprising an electrical measurement element; and
3 an electrode comprising:
4 a conductive adhesive layer; and

5 a conductive layer coupled to the conductive adhesive layer, the
6 conductive layer having at least one void therein that provides a
7 nonconductive region within the conductive layer.

1 31. The system of claim 30,
2 wherein a void affects electrical current transport properties associated with
3 the electrode.

1 32. The system of claim 30,
2 wherein the conductive adhesive layer may be characterized by a thickness,
3 and wherein a void affects electrical current transport properties in a direction
4 perpendicular to the conductive adhesive layer's thickness.

1 33. The system of claim 30,
2 wherein the electrode comprises an electrotherapy electrode.

1 34. The system of claim 30,
2 wherein the device comprises a defibrillator and the electrode comprises a
3 defibrillation electrode.

1 35. A system comprising:
2 a device comprising an electrical measurement element; and
3 an electrode comprising:
4 a conductive adhesive layer;
5 a conductive layer coupled to the conductive adhesive layer; and
6 a set of swatches positioned between the conductive adhesive layer
7 and the conductive layer,
8 wherein a swatch is characterized by an area that is smaller than that of
9 the conductive layer.

1 36. The system of claim 35, wherein a swatch comprises an insulating material.

1 37. The system of claim 35, wherein a swatch affects electrical current transport
2 properties associated with the electrode.

1 38. The system of claim 35, wherein the conductive adhesive layer may be
2 characterized by a thickness, and wherein a swatch affects electrical current

3 transport properties in a direction perpendicular to the conductive adhesive layer's
4 thickness.

1 39. The system of claim 35,
2 wherein the electrode comprises an electrotherapy electrode.

1 40. The system of claim 35,
2 wherein the device comprises a defibrillator and the electrode comprises a
3 defibrillation electrode.

1 41. A system comprising:
2 a device comprising an electrical measurement element; and
3 an electrode comprising an ultrasonic transmitter.

1 42. The system of claim 41,
2 wherein the electrode comprises an electrotherapy electrode.

1 43. The system of claim 41,
2 wherein the device comprises a defibrillator and the electrode comprises a
3 defibrillation electrode.

1 44. A system comprising:
2 a device comprising an electrical measurement element; and
3 an electrode comprising an ultrasonic receiver.

1 45. The system of claim 44,
2 wherein the electrode comprises an electrotherapy electrode.

1 46. The system of claim 44,
2 wherein the device comprises a defibrillator and the electrode comprises a
3 defibrillation electrode.

1 47. A release liner comprising:
2 a release layer; and
3 one from the group of a moisture permeable membrane and a moisture
4 absorbent membrane.

1 48. The release liner of claim 47,
2 wherein the membrane comprises paper.

1 49. The release liner of claim 47,
2 wherein the membrane is maintained in a position via attachment to the
3 release layer.

1 50. The release liner of claim 47,
2 wherein the release layer comprises a foldable sheet.

1 51. The release liner of claim 47,
2 wherein a portion of the membrane extends beyond a boundary of the release
3 layer.

1 52. A release liner comprising:
2 a first release layer;
3 one from the group of a moisture permeable membrane and a moisture
4 absorbent membrane; and
5 a second release layer.

1 53. The release liner of claim 52,
2 wherein the membrane comprises paper.

1 54. The release liner of claim 52,
2 wherein the first release layer includes an opening therein, and wherein the
3 second release layer includes an opening therein.

1 55. The release layer of claim 52,
2 wherein a portion of the membrane extends beyond a boundary of the first
3 release layer.

1 56. A release liner comprising:
2 a release layer having an electrode mounting side and a rear side; and
3 a conductive strip upon the electrode mounting side,
4 wherein the conductive strip is maintained in a position parallel to the
5 electrode mounting side.

1 57. The release liner of claim 56,
2 wherein the release layer comprises a foldable sheet.

1 58. A release liner comprising:
2 a release layer having a first side and a second side; and
3 a conductive band that encircles the first and second sides.

1 59. A release liner comprising:
2 a release layer having a first side and a second side;
3 a first conductive strip upon the first side; and
4 a second conductive strip upon the second side,
5 wherein the first conductive strip is maintained in a position parallel to the first
6 side.

1 60. A release liner comprising:
2 a single release layer having an electrode mounting side, a rear side, and a
3 set of openings; and
4 a conductive backing layer positioned upon a portion of the release liner's rear
5 side.

1 61. The release liner of claim 60,
2 wherein the set of openings includes a first opening and a second opening.

1 62. The release liner of claim 60,
2 wherein the single release layer comprises a foldable sheet.

1 63. The release liner of claim 60,
2 wherein the conductive backing layer comprises a metal.

1 64. The release liner of claim 60,
2 wherein the conductive backing layer comprises a conductive adhesive layer.

1 65. A release liner comprising:
2 a conductive backing layer;
3 a first release portion positioned upon a portion of the conductive backing
4 layer; and
5 a second release portion positioned upon a portion of the conductive backing
6 layer,
7 wherein the first and second release portions may be positioned in an
8 essentially identical plane.

1 66. The release liner of claim 65,
2 wherein the first release portion includes an opening.

1 67. A release liner comprising:
2 a first release layer having a first opening;
3 a second release layer having a second opening; and
4 a conductive adhesive layer between the first and second release layers.

1 68. The release liner of claim 67,
2 wherein the first opening is offset with respect to the second opening in
3 accordance with a separation distance.

1 69. The release liner of claim 67,
2 wherein the first opening is offset with respect to the second opening in
3 accordance with a separation distance that corresponds to a target impedance
4 range.

1 70. A release liner comprising:
2 a conductive adhesive layer; and
3 a foldable release layer folded to surround a portion of the conductive
4 adhesive layer.

1 71. The release liner of claim 70,
2 wherein the foldable release layer includes a first opening and a second
3 opening.

1 72. The release liner of claim 70,
2 wherein the foldable release layer includes a first opening and a second
3 opening, and wherein the first opening is offset with respect to the second opening in
4 accordance with a separation distance.

1 73. The release liner of claim 70,
2 wherein the foldable release layer includes a first opening and a second
3 opening, and wherein the first opening is offset with respect to the second opening in
4 accordance with a separation distance that corresponds to a target impedance
5 range.

1 74. A release liner comprising:
2 a release layer having an opening; and
3 an insulating swatch positioned over a portion of the opening.

1 75. A release liner comprising:
2 a release layer having a first and a second opening; and
3 an insulating swatch positioned over a portion of the first opening.

1 76. The release liner of claim 75, wherein the release layer comprises a foldable
2 sheet.

1 77. A release liner and electrode system comprising:
2 a release layer;
3 one from the group of a moisture permeable membrane and a moisture
4 absorbent membrane; and
5 a first electrode mounted upon the release layer.

1 78. The release liner and electrode system of claim 77,
2 wherein the membrane is maintained in a position via adhesion to a portion of
3 the first electrode.

1 79. The release liner and electrode system of claim 77,
2 wherein the release layer comprises a foldable sheet.

1 80. The release liner and electrode system of claim 77, further comprising:
2 a second electrode mounted upon the release layer,
3 wherein the first and second electrodes are in electrical contact.

1 81. A release liner and electrode system comprising:
2 a release layer having a first side and a second side;
3 one from the group of a moisture permeable membrane and a moisture
4 absorbent membrane;
5 a first electrode mounted upon the release layer's first side; and
6 a second electrode mounted upon the release layer's first side.

1 82. The release liner and electrode system of claim 81,
2 wherein the membrane contacts the release layer's second side.

1 83. The release liner and electrode system of claim 81,
2 wherein the first and second electrodes are in electrical contact.

1 84. A release liner and electrode system comprising:
2 a release layer having a first side and a second side;
3 a conductive strip upon the first side; and
4 a first electrode upon the first side,
5 wherein the conductive strip is maintained in a position parallel to the first side.

1 85. The release liner and electrode system of claim 84,
2 wherein the release layer comprises a foldable sheet.

1 86. The release liner and electrode system of claim 84, further comprising:
2 a second electrode upon the first side.

1 87. The release liner and electrode system of claim 84, further comprising:
2 a second electrode upon the first side,
3 wherein the first and second electrodes are in electrical contact.

1 88. The release liner and electrode system of claim 84, further comprising:
2 a second electrode upon the second side.

1 89. A release liner and electrode system comprising:
2 a release layer having a first side and a second side;
3 a conductive strip that encircles the first and second sides; and
4 a first electrode upon the first side.

1 90. A release liner and electrode system comprising:
2 a release layer having a first side and a second side;
3 a first conductive strip upon the first side;
4 a second conductive strip upon the second side; and
5 a first electrode upon the first side,
6 wherein the first conductive strip is maintained in a position parallel to the first
7 side.

1 91. A release liner and electrode system comprising:
2 a single release layer having an electrode mounting side, a rear side, a first
3 opening, and a second opening;

4 a conductive backing layer positioned upon a portion of the release liner's rear
5 side; and

6 a first electrode covering a portion of the first opening.

1 92. The release liner and electrode system of claim 91,
2 wherein the release layer comprises a foldable sheet.

1 93. The release liner and electrode system of claim 91,
2 wherein the conductive backing layer comprises a metal foil.

1 94. The release liner and electrode system of claim 91,
2 wherein the conductive backing layer comprises a conductive adhesive layer.

1 95. The release liner and electrode system of claim 91, further comprising:
2 a second electrode covering a portion of the second opening.

1 96. The release liner and electrode system of claim 91, further comprising:
2 a second electrode covering a portion of the second opening,
3 wherein the first and second electrodes are in electrical contact.

1 97. A release liner and electrode system comprising:
2 a conductive backing layer;
3 a first release portion positioned upon the conductive backing layer;
4 a second release portion positioned upon the conductive backing layer; and
5 a first electrode upon the first release portion,
6 wherein the first and second release portions may be maintained in an
7 essentially identical plane.

1 98. The release liner and electrode system of claim 97,
2 wherein the first release portion includes an opening.

1 99. A release liner and electrode system comprising:
2 a first release layer having a first opening therein;
3 a second release layer having a second opening therein;
4 a conductive adhesive layer between the first and second release layers;
5 a first electrode upon the first release layer; and
6 a second electrode upon the second release layer.

1 100. The release liner and electrode system of claim 99,
2 wherein the first opening is misaligned with respect to the second opening in
3 accordance with a separation distance.

1 101. The release liner and electrode system of claim 99,
2 wherein the first opening is misaligned with respect to the second opening in
3 accordance with a separation distance, and
4 wherein the first and second electrodes are in electrical contact.

1 102. A release liner and electrode system comprising:
2 a conductive adhesive layer;
3 a foldable release layer folded to surround a portion of the conductive
4 adhesive layer; and
5 a set of electrodes mounted upon the foldable release layer.

1 103. The release liner and electrode system of claim 102,
2 wherein the foldable release layer includes a first opening and a second
3 opening.

1 104. The release liner and electrode system of claim 102,
2 wherein the foldable release layer includes a first opening and a second
3 opening, and wherein the first opening is misaligned relative to the second opening in
4 accordance with a separation distance.

1 105. The release liner and electrode system of claim 102,
2 wherein a first electrode and a second electrode are in electrical contact.

1 106. A release liner and electrode system comprising:
2 a release layer having at least one opening;
3 an insulating swatch positioned over a portion of an opening; and
4 a set of electrodes upon the release layer.

1 107. The release liner and electrode system of claim 106, wherein a portion of at
2 least one electrode covers the swatch.

1 108. A release liner and electrode system comprising:
2 a release liner; and
3 an electrode comprising:

4 a conductive adhesive layer; and
5 a conductive layer coupled to the conductive adhesive layer, the
6 conductive layer including a nonconductive region therein.

1 109. The release liner and electrode system of claim 108,
2 wherein the release liner includes an opening therein.

1 110. The release liner and electrode system of claim 108,
2 wherein the nonconductive region is formed by a void in the conductive layer.

1 111. The release liner and electrode system of claim 108,
2 wherein the release liner includes an opening therein,
3 wherein the nonconductive region is formed by a void in the conductive layer,
4 and
5 wherein the void is centered over the release liner opening.

1 112. A release liner and electrode system comprising:
2 a release liner; and
3 an electrode comprising:
4 a conductive adhesive layer;
5 a conductive layer coupled to the conductive adhesive layer; and
6 an internal swatch between the conductive adhesive layer and the
7 conductive layer,
8 wherein the internal swatch is characterized by an area that is smaller than
9 that of the conductive layer.

1 113. The release liner and electrode system of claim 112,
2 wherein the release liner includes an opening therein.

1 114. The release liner and electrode system of claim 112,
2 wherein the release liner includes an opening therein, and
3 wherein the swatch is centered over the release liner opening.

1 115. The release liner and electrode system of claim 112,
2 wherein an internal swatch comprises an insulating material.

1 116. A release liner and electrode system comprising:
2 a release layer having an opening therein; and

3 an electrode comprising:
4 a conductive adhesive layer; and
5 a conductive layer coupled to the conductive adhesive layer, the
6 conductive layer having a recess therein,
7 wherein the recess is positioned over a portion of the release layer's opening.

1 117. A release liner and electrode system comprising:
2 a release liner; and
3 an electrode comprising an ultrasonic transmitter.

1 118. A release liner and electrode system comprising:
2 a release liner; and
3 an electrode comprising an ultrasonic receiver.

1 119. A release liner and electrode system comprising:
2 a release liner; and
3 at least one electrode mounted upon the release liner,
4 wherein an impedance associated with the electrode is greater than a typical
5 patient impedance range when the electrode exhibits acceptable operating
6 parameters.

1 120. The release liner and electrode system of claim 119,
2 wherein the electrode includes a conductive adhesive layer, and
3 wherein the impedance associated with the electrode remains above the
4 typical patient impedance range as the conductive adhesive layer loses moisture
5 over time.

1 121. A packaged electrode arrangement comprising:
2 a rigid container having an electrical interface incorporated therein;
3 a release liner having an opening therein; and
4 an electrode mounted upon the release liner.

1 122. A packaged electrode having an associated install by date that indicates a
2 date by which the electrode should be coupled to one from the group of a medical
3 device and a measuring device.

1 123. An electrode status indicator comprising:
2 a panel corresponding to a visual metaphor; and
3 an indicating element positioned relative to the panel.

1 124. The electrode status indicator of claim 123,
2 wherein the visual metaphor corresponds to a fuel gauge.

1 125. The electrode status indicator of claim 123;
2 wherein the electrode status indicator provides an indication of an extent to
3 which an electrode is fit for use.

1 126. The electrode status indicator of claim 123,
2 wherein the panel comprises a region corresponding to electrode condition in
3 accordance with one from the group of an excellent rating, a good rating, an
4 acceptable rating, a poor rating, and an unusable rating.

1 127. The electrode status indicator of claim 123,
2 wherein the electrode status indicator provides an indication of an estimated
3 remaining electrode lifetime.

1 128. A package for medical electrodes comprising:
2 a release liner;
3 a set of electrodes mounted upon the release liner; and
4 an electrode status indicator comprising:
5 a panel corresponding to a visual metaphor; and
6 an indicating element positioned relative to the panel.

1 129. The package for medical electrodes of claim 128,
2 wherein the electrode status indicator provides an indication of an extent to
3 which an electrode is fit for use.

1 130. The package for medical electrodes of claim 128,
2 wherein the panel comprises a region corresponding to electrode condition in
3 accordance with one from the group of an excellent rating, a good rating, an
4 acceptable rating, a poor rating, and an unusable rating.

1 131. The package for medical electrodes of claim 128,
2 wherein the electrode status indicator provides an indication of an estimated
3 remaining electrode lifetime.

1 132. A device coupled to a packaged electrode, the device comprising:
2 circuitry for characterizing an electrical path corresponding to the electrode;
3 and
4 a subsystem for indicating an electrode status via a visual metaphor.

1 133. The device of claim 132,
2 wherein the subsystem comprises:
3 a panel corresponding to the visual metaphor; and
4 an indicating element positioned relative to the panel.

1 134. The device of claim 132,
2 wherein the visual metaphor corresponds to a fuel gauge.

1 135. The device of claim 132,
2 wherein the visual metaphor corresponds to an electrode condition according
3 to one from the group of an excellent rating, a good rating, an acceptable rating, and
4 an unusable rating.

1 136. A device coupled to a packaged electrode, the device comprising:
2 circuitry for characterizing an electrical path corresponding to the electrode;
3 and
4 a subsystem for indicating an estimated time period that the electrode is likely
5 to exhibit a given range of operating characteristics.

1 137. The device of claim 136,
2 wherein the subsystem indicates an estimated time period via a visual
3 metaphor.

1 138. The device of claim 137,
2 wherein the visual metaphor corresponds to a fuel gauge.

1 139. The device of claim 136,
2 wherein the subsystem comprises:

3 a panel; and
4 an indicating element positioned relative to the panel.

1 140. A method for characterizing an electrode mounted upon a release liner, the
2 electrode comprising a conductive layer coupled to a conductive adhesive layer, the
3 conductive adhesive layer characterized by a thickness, the method comprising the
4 step of generating an electrical current along an electrical path internal to the
5 electrode that is characterized by an electrical path length significantly greater than
6 the thickness of the conductive adhesive layer.

1 141. A method for characterizing an electrode mounted upon a release liner, the
2 electrode comprising a conductive layer coupled to a conductive adhesive layer, the
3 method comprising the step of generating an electrical current along an electrical
4 path internal to the electrode that includes a current component that is parallel to the
5 conductive layer.

1 142. A method for characterizing a pair of electrodes mounted upon a release liner,
2 each electrode comprising a conductive layer and a conductive adhesive layer, the
3 method comprising the step of generating an electrical current along an electrical
4 path internal to the electrodes that is longer than a shortest distance between the
5 electrodes' conductive layers.

1 143. In a system comprising a device coupled to an electrode mounted upon a
2 release liner, a method for characterizing an electrical path corresponding to the
3 electrode, the method comprising the step of performing a temperature compensated
4 impedance measurement.

1 144. In a system comprising a device coupled to an electrode mounted upon a
2 release liner, a method for characterizing an electrical path corresponding to the
3 electrode, the method comprising the step of performing a capacitance
4 measurement.

1 145. In a system comprising a device coupled to an electrode mounted upon a
2 release liner, a method for characterizing an electrical path corresponding to the
3 electrode, the method comprising the step of performing a complex impedance
4 measurement.

1 146. In a system comprising a device coupled via lead wires to at least one
2 electrode mounted upon a release liner, at least one electrode comprising a
3 conductive adhesive layer and a conductive layer coupled to the conductive adhesive
4 layer, the conductive layer having at least one nonconductive region therein, a
5 method for characterizing an electrical path corresponding to an electrode and the
6 lead wires comprising the step of determining whether electrical continuity exists
7 along the electrical path.

1 147. The method of claim 146,
2 wherein the determining step comprises the substep of determining whether
3 an open circuit condition exists.

1 148. The method of claim 146,
2 wherein the determining step comprises the substep of determining whether a
3 short circuit condition exists.

1 149. In a system comprising a device coupled via lead wires to at least one
2 electrode mounted upon a release liner, at least one electrode comprising a
3 conductive adhesive layer and a conductive layer coupled to the conductive adhesive
4 layer, the conductive layer having at least one void therein that provides a
5 nonconductive region within the conductive layer, a method for characterizing an
6 electrical path corresponding to an electrode and the lead wires comprising the step
7 of determining whether electrical continuity exists along the electrical path.

1 150. The method of claim 149,
2 wherein the determining step comprises the substep of determining whether
3 an open circuit condition exists.

1 151. The method of claim 149,
2 wherein the determining step comprises the substep of determining whether a
3 short circuit condition exists.

1 152. In a system comprising a device coupled via lead wires to at least one
2 electrode mounted upon a release liner, at least one electrode comprising a
3 conductive adhesive layer, a conductive layer coupled to the conductive adhesive
4 layer, and a set of swatches positioned between the conductive adhesive layer and

5 the conductive layer, a method for characterizing an electrical path corresponding to
6 an electrode and the lead wires comprising the step of determining whether electrical
7 continuity exists along the electrical path.

1 153. The method of claim 152,
2 wherein the determining step comprises the substep of determining whether
3 an open circuit condition exists.

1 154. The method of claim 152,
2 wherein the determining step comprises the substep of determining whether a
3 short circuit condition exists.

1 155. In a system comprising a device coupled via lead wires to at least one
2 electrode mounted upon a release liner, at least one electrode comprising a
3 conductive adhesive layer, a conductive layer coupled to the conductive adhesive
4 layer, and an ultrasonic transmitter, a method for characterizing an electrical path
5 corresponding to an electrode and the lead wires comprising the step of determining
6 whether electrical continuity exists along the electrical path.

1 156. The method of claim 155,
2 wherein the determining step comprises the substep of determining whether
3 an open circuit condition exists.

1 157. The method of claim 155,
2 wherein the determining step comprises the substep of determining whether a
3 short circuit condition exists.

1 158. In a system comprising a device coupled via lead wires to at least one
2 electrode mounted upon a release liner, at least one electrode comprising a
3 conductive adhesive layer, a conductive layer coupled to the conductive adhesive
4 layer, and an ultrasonic receiver, a method for characterizing an electrical path
5 corresponding to an electrode and the lead wires comprising the step of determining
6 whether electrical continuity exists along the electrical path.

1 159. The method of claim 158,
2 wherein the determining step comprises the substep of determining whether
3 an open circuit condition exists.

1 160. The method of claim 158,
2 wherein the determining step comprises the substep of determining whether a
3 short circuit condition exists.

1 161. In a system comprising a device coupled to at least one electrode, a method
2 for determining an impedance of an electrical path that includes an electrode, the
3 method comprising the step of measuring a temperature.

1 162. The method of claim 161, further comprising the steps of:
2 measuring a first impedance value; and
3 determining a second impedance value based upon the first impedance value
4 and the temperature.

1 163. The method of claim 161, further comprising the step of measuring an
2 impedance value,
3 wherein the impedance value remains above a typical patient impedance level
4 throughout a storage temperature range associated with the electrode.

1 164. In a system comprising a medical device coupled to an electrode, a method for
2 determining whether the electrode is mounted upon a release liner comprising the
3 steps of:

4 determining an impedance of an electrical path that includes the electrode;
5 and

6 comparing the impedance to a typical patient impedance level; and
7 determining that the electrode is mounted upon the release liner in the event
8 that the impedance exceeds the typical patient impedance level and the electrical
9 path exhibits electrical continuity.

1 165. The method of claim 164,
2 wherein the typical patient impedance level is greater than or equal to
3 approximately 200 Ohms when measured at a frequency between 10 and 30
4 kilohertz.

1 166. The method of claim 164, further comprising the step of measuring a
2 temperature.

1 167. In a system comprising a medical device, at least one electrode, an ultrasonic
2 transmitter, and an ultrasonic receiver, a method for determining whether an
3 electrode is mounted upon a release liner comprising the steps of:
4 generating an ultrasonic signal at a first time;
5 detecting the ultrasonic signal at a second time; and
6 determining a separation distance in accordance with a difference between the
7 first time and the second time.

1 168. In a system comprising a device capable of performing an electrical
2 measurement coupled to an electrode mounted upon a release liner, the electrode
3 comprising a conductive adhesive layer, a method comprising the steps of:
4 measuring an electrical characteristic of an electrical path that includes the
5 electrode; and
6 determining a current condition of the conductive adhesive layer based upon
7 the electrical characteristic.

1 169. The method of claim 168, further comprising the step of providing an indication
2 of current conductive adhesive layer condition.

1 170. The method of claim 168, further comprising the step of indicating that the
2 electrode requires replacement.

1 171. In a system comprising a device capable of performing an electrical
2 measurement coupled via a set of lead wires to a pair of electrodes mounted upon a
3 release liner, each electrode comprising a conductive layer and a conductive
4 adhesive layer, a method comprising the steps of:
5 measuring an electrical characteristic of an electrical path defined by the lead
6 wires, each electrode's conductive layer, and a portion of each electrode's conductive
7 adhesive layer exclusive of other conductive pathways; and
8 determining a current operating condition of an electrode's conductive
9 adhesive layer based upon the electrical characteristic.

1 172. The method of claim 171,

2 wherein the step of determining the current operating condition of the
3 electrode's conductive adhesive layer precludes a need to associate temporally
4 constant expiration date information with the electrode.

1 173. In a system comprising a device capable of performing an electrical
2 measurement coupled via a set of lead wires to a pair of electrodes mounted upon a
3 release liner, each electrode comprising a conductive layer and a conductive
4 adhesive layer, a method comprising the steps of:

5 measuring an electrical characteristic of an electrical path defined by the lead
6 wires, each electrode's conductive layer, and a portion of each electrode's conductive
7 adhesive layer exclusive of other conductive pathways; and

8 determining an estimated remaining lifetime corresponding to an electrode's
9 conductive adhesive layer based upon the electrical characteristic.

1 174. A method for indicating a status corresponding to an electrode mounted upon
2 a release liner, comprising the steps of:

3 performing an electrical measurement upon a current path that includes the
4 electrode; and

5 indicating an electrode status via a visual metaphor.

1 175. The method of claim 174,

2 wherein the visual metaphor corresponds to a fuel gauge.

1 176. The method of claim 174,

2 wherein the electrode includes a conductive adhesive layer, and wherein the
3 electrode status corresponds to an extent to which the conductive adhesive layer has
4 degraded.

1 177. The method of claim 174,

2 wherein the electrode status corresponds to an estimated time period that the
3 electrode is likely to exhibit a given range of operating characteristics.